A. I. A. File No. 35-J.41

Mid-West
Chute Fed Incinerators

REPRESENTED BY

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3727 OLIVE STREET

ST. LOUIS, MISSOURI

TELEPHONE JEFFERSON 8494

Bulletin No. 1A

B. 3.

MORE than a score of years of practical experience with chimney fed incinerators enabled us to produce in the MID-WEST CHUTE FED INCINERATOR a machine of the highest type, free from all flaws and short-comings, prevailing in furnaces of this type. The MID-WEST CHUTE FED INCINERATORS meet the most exacting requirements, demanded from an apparatus of this type.

The prime feature of the furnace, upon which its satisfactory operation is founded, is its furnace and grate construction.

The great advantage of the step grate construction prompted us to the adoption of this type.

A radical change in the conventional step grate design was necessary to overcome warping of the long step plates. The new *Mid-West self stoking grate construction* absolutely solved this problem. The grate surface is composed of single bars having short lateral wings, forming the steps. This construction not only permits free expansion and reduces warping of the steps, but also increases the life of the grates greatly, because the cooling surfaces of the grates is 35% larger than that afforded by the conventional step grate design.

A further advantageous innovation is the *sliding ash grate* construction. This design not only shields the lower steps from direct action of the fire bed but also prevents of unburnt material rolling out into the ash pit. Slight shaking of ash grates removes fine ashes, greatly facilitating cleaning of fires.

In designing the MID-WEST INCINERATOR *durability* and *strength* has been the watchword; expansion and contraction of the furnace members has been considered; and from our many years of experience precaution has been taken to take care of such stresses.

Ease and *simplicity of construction* of the brickwork will certainly be appreciated by the builder.

To no less degree does the user profit by the *simplicity* with which the incinerators may be *operated* and *cleaned*.

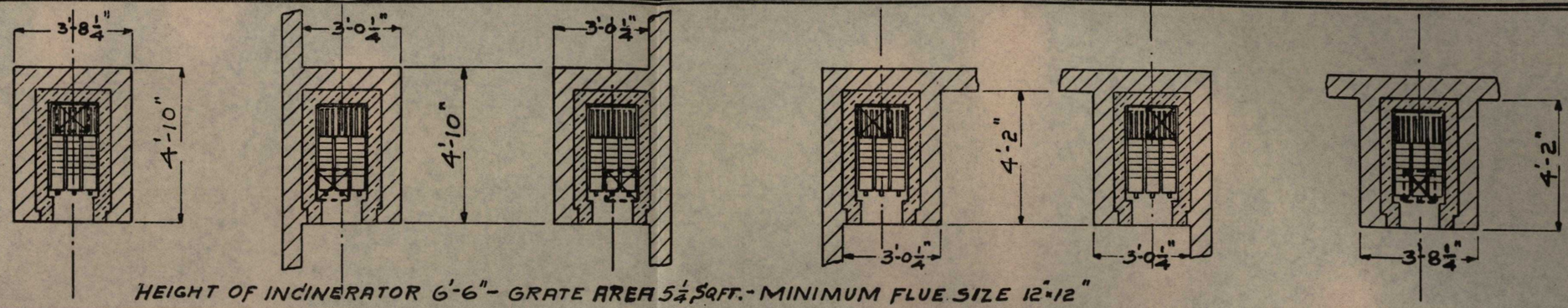
Our efforts did not stop with the production of a technically perfected apparatus; for the *appearance and finish* of the furnace parts received due consideration. A feature that will appeal to the designer and builder of high grade modern dwellings.

MID-WEST-CHUTE-FED-INCINERATORS

TYPICAL-FLOOR-PLANS

MODEL:1

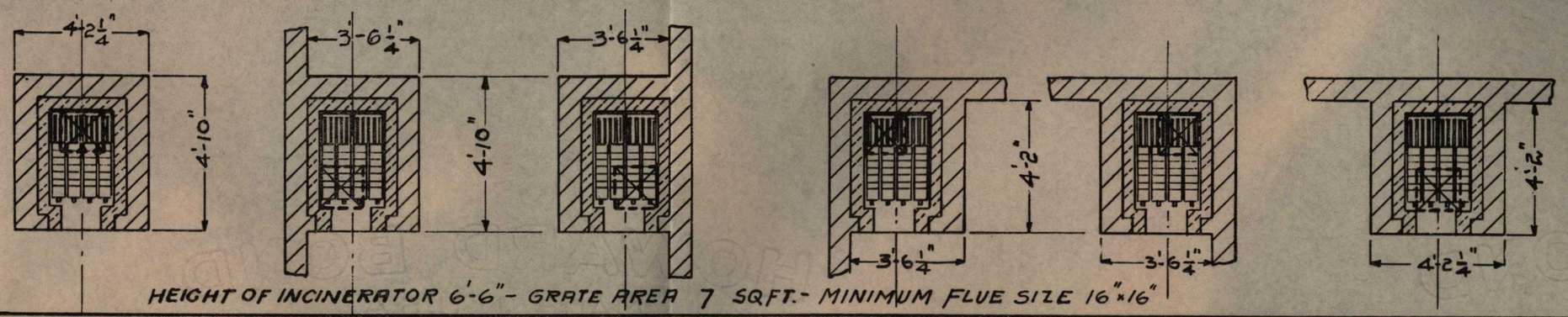
FOR RESIDENCES
20 KITCHENETTE
OR FOR 12 ORDINARY
APARTMENTS



HEIGHT OF INCINERATOR 6'-6" - GRATE AREA 5 1/4 SQFT. - MINIMUM FLUE SIZE 12"×12"

MODEL:2

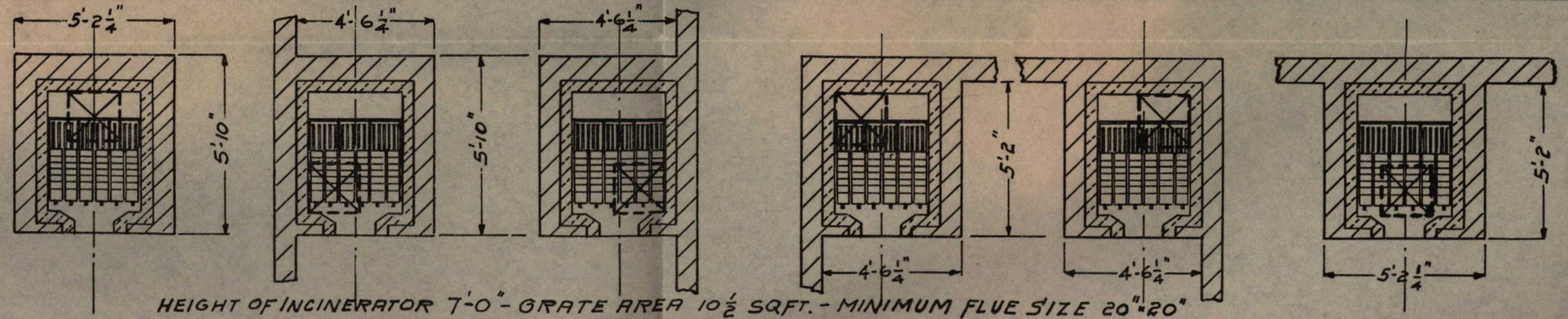
FOR 125 KITCHENETTE
OR FOR 60 ORDINARY
APARTMENTS



HEIGHT OF INCINERATOR 6'-6" - GRATE AREA 7 SQFT. - MINIMUM FLUE SIZE 16"×16"

MODEL:3

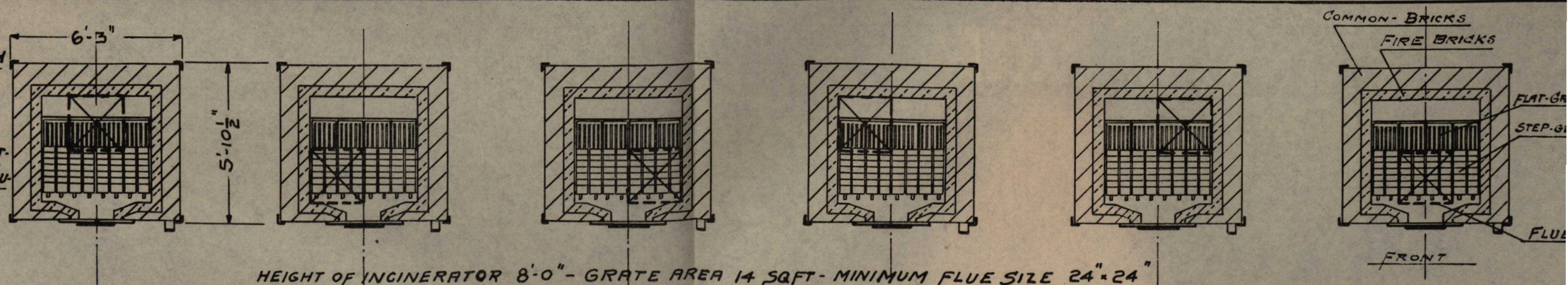
FOR 250 KITCHENETTE
OR FOR 75 ORDINARY
APARTMENTS



HEIGHT OF INCINERATOR 7'-0" - GRATE AREA 10 1/2 SQFT. - MINIMUM FLUE SIZE 20"×20"

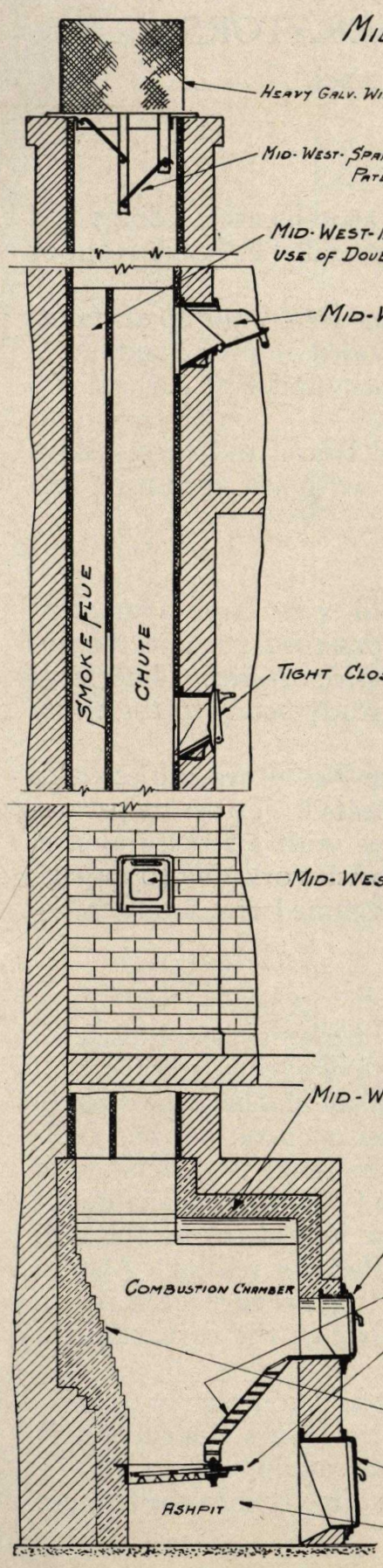
MODEL:4

FOR BUILDINGS WITH
MORE THAN 250
KITCHENETTE OR
MORE THAN 75
ORDINARY APART-
MENTS ALSO INSTITU-
TIONS HAVING 175
lbs. P. H.



HEIGHT OF INCINERATOR 8'-0" - GRATE AREA 14 SQFT - MINIMUM FLUE SIZE 24"×24"

MID-WEST-IMPROVED-CHUTE-FED-INCINERATORS



HEAVY GALV. WIRE SCREEN ½" MESH

MID-WEST-SPARK AND PAPER ARRESTER
PATENTS PENDING
{ ELIMINATES CLOGGING OF TOP SREEN AND PREVENTS SMOKE FROM ENTERING INTO LIVING QUARTERS
AN EXCLUSIVE FEATURE OF THE MID-WEST-INCINERATOR

MID-WEST-INCINERATOR CORP. ADVISES USE OF DOUBLE FLUE SYSTEM } TO ELIMINATE BACKFIRING CAUSED BY OBSTRUCTED FLUE

MID-WEST-LARGE RECEIVING DOORS

TIGHT CLOSING RECEIVING DOOR PRACTICALLY FLUSH WITH WALL
PREVENTS SMOKE FROM STAINING WALLS

MID-WEST-RECEIVING DOOR, NOT ONLY CONVENIENT BUT DECORATIVE

MID-WEST IMPROVED FURNACE TOP CONSTRUCTION { ELIMINATING METAL PARTS EXPOSED TO FIRE AND ELIMINATING USE OF FIRE CLAY TILES

MID-WEST LARGE FIRE DOOR WITH SELF ANCHORING FRAME

MID-WEST-SELF-STOKING GRATES AND MID-WEST-SLIDING ASH GRATES { MOST EFFICIENT COMBUSTION
ODORLESS COMPLETE INCINERATION
NO DROPPING OF UNBURNED MATERIAL INTO ASHPIT.
MOST CONVENIENT OPERATION
DURABLE AND PRACTICALLY FOOL-PROOF

PROTRUDING REAR WALL ABSORBES SHOCK OF FALLING HEAVY ARTICLES PROTECTING GRATES ALSO DIRECTS FALLING MATERIAL ON SELF STOKING GRATES

MID-WEST LARGE ASHPIT DOORS WITH SELF ANCHORING FRAME
THE LARGE AND WIDE DOOR FACILITATES REMOVAL OF ASHES

LARGE ASHPIT

MID-WEST CHUTE FED INCINERATORS

are manufactured in five standard sizes

FURNACE SIZES 1 to 3

Furnace sizes 1 to 3 are types generally used in apartment buildings and residences. The flue may empty into the furnace chamber either in front or rear, as best suited to the installation.

The top or roof of the incinerator is formed by an arch, built up of standard fire brick shapes. Angles with tie rods are provided on No. 2 and No. 3 to take up side thrust of arches. This is the cheapest and best furnace-top construction.

Furnaces have one large fire door (12"x15" in the clear) and large ashpit doors (15"x18" in the clear). Doors are provided with self anchoring cast iron door-frame.

FURNACE No. 4

To supply the demand for a large furnace used in very large apartment buildings, hotels and other institutions, we have designed furnace No. 4. This furnace has a combustion chamber of ample proportions. The large guillotine type of door and two ashpit doors give ready access to the entire grate construction.

Furnaces of such proportion as Mid-West Furnace No. 4 are subjected to considerable expansion of the brick work when heated. To assure permanence of the brickwork, we have equipped this type with a structural steel frame, which takes up all stresses acting upon the brickwork due to expansion and contraction. Thus a furnace setting is obtained free from cracking.

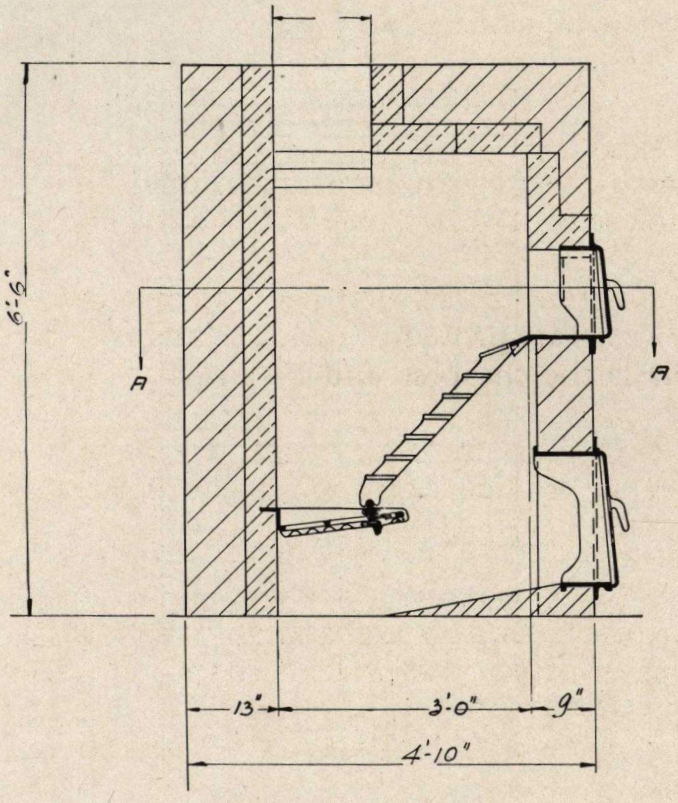
FURNACE No. 5

Institutions, apartment hotels with large central kitchens, hospitals, etc., producing a larger amount of wet garbage than the average households, will obtain best results by feeding the large accumulations of wet garbage directly into the furnace. This procedure will assure a better incineration than feeding through the flue or chute. The destruction of material is difficult, and demands a more selective placing of the refuse in the furnace. It is analogous to firing a larger house boiler or furnace. No one would throw the coal promiscuously into such a furnace and expect satisfactory results. Also in an incinerator that must operate at highest efficiency, when garbage is fed in large quantities, it should be fed into the proper place in the furnace, viz., upon the dead plate.

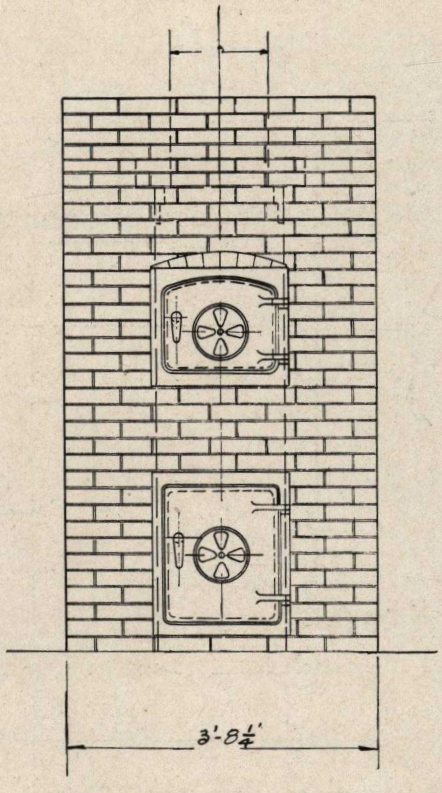
If this is done properly the furnace destroys readily and completely quantities of material that would require additional fuel to insure destruction if dropped into the chute and deposited on the grate at random.

For convenience in emptying large cans of garbage directly into the furnace this type has an inclined front or firing door.

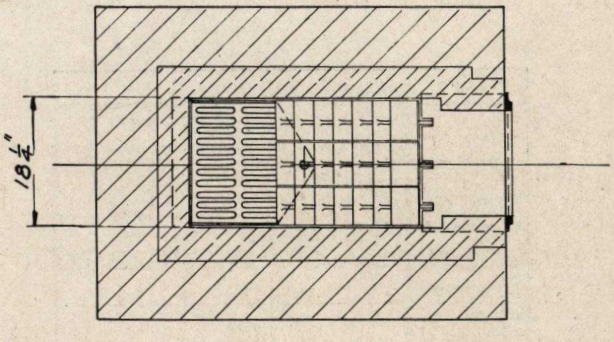
Like No. 4 it is equipped with steel frame to secure brickwork.



-LONGITUDINAL-SECTION-



-FRONT-ELEVATION-



SECTION-A-A

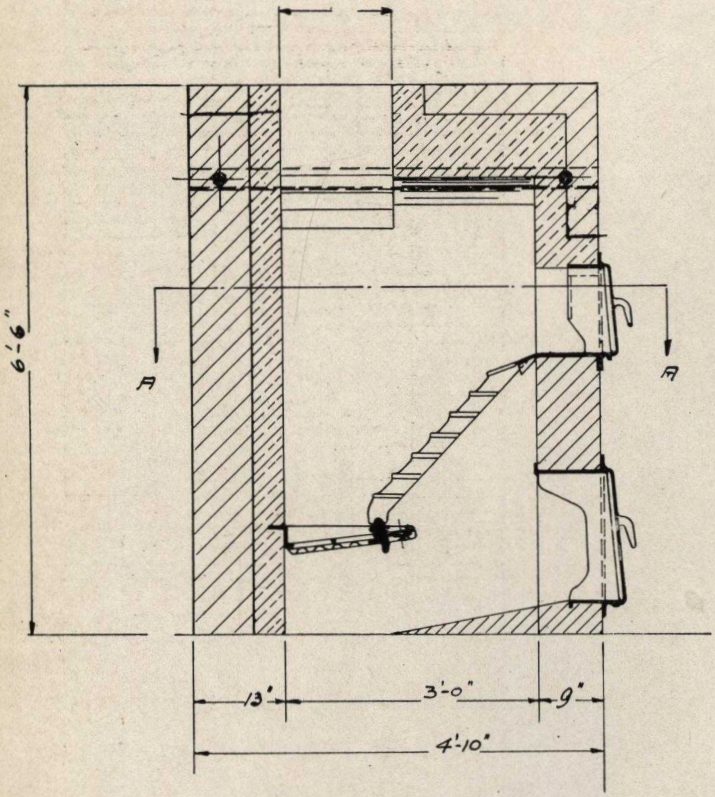
MODEL	INCINERATOR #1
CAPACITY	FOR RESIDENCES - 20 KITCHENETTE OR FOR 12 ORDINARY APARTMENTS
MINIMUM SIZE OF DOUBLE FLUE	SIZE OF CHUTE 12" × 12" SIZE OF SMOKE FLUE 4½" × 12"
MINIMUM SIZE OF SINGLE FLUE	RESIDENCES 12" × 12" APARTMENT BLDGS. 16" × 16"
GRATE AREA	18" · 36"
NUMBER OF BRICKS	FIRE BRICKS 450 TILES 2-4"·12"·24" COMMON BRICKS 1300
REMARKS	

PATENT-APPLIED FOR

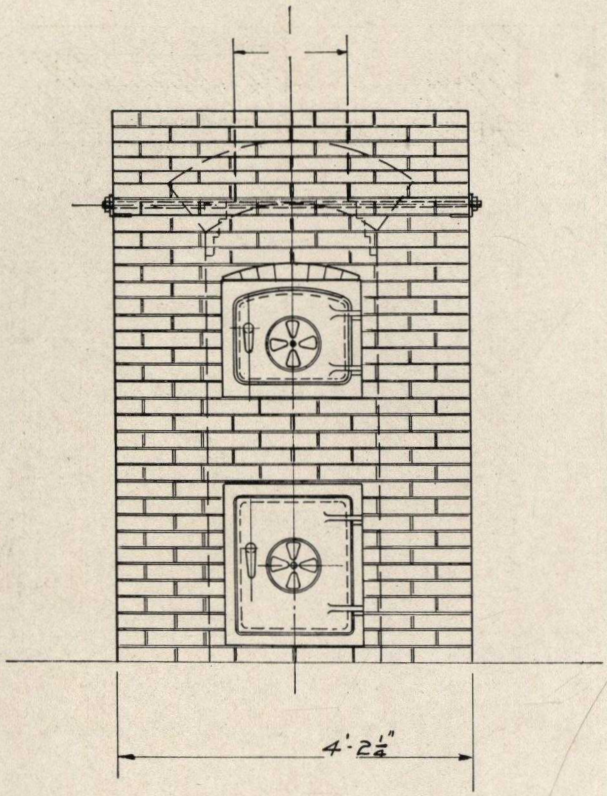
INCINERATOR #1.

MID-WEST INCINERATOR CORP.
CHICAGO ILL

DRAWN: H.M.	SCALE 1" = 1'-0"
TRACED: H.M.	A-1.
APPR.	DATE: FEB. 2. 27.



- LONGITUDINAL SECTION -



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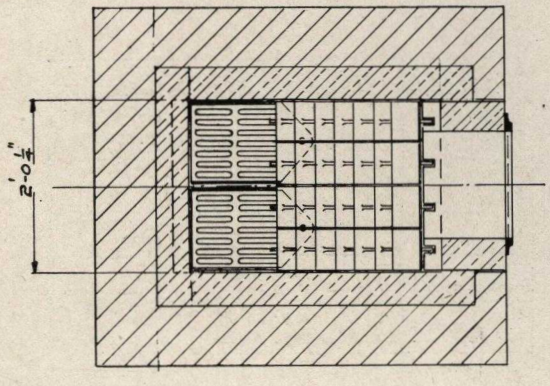


SECTION - A-A

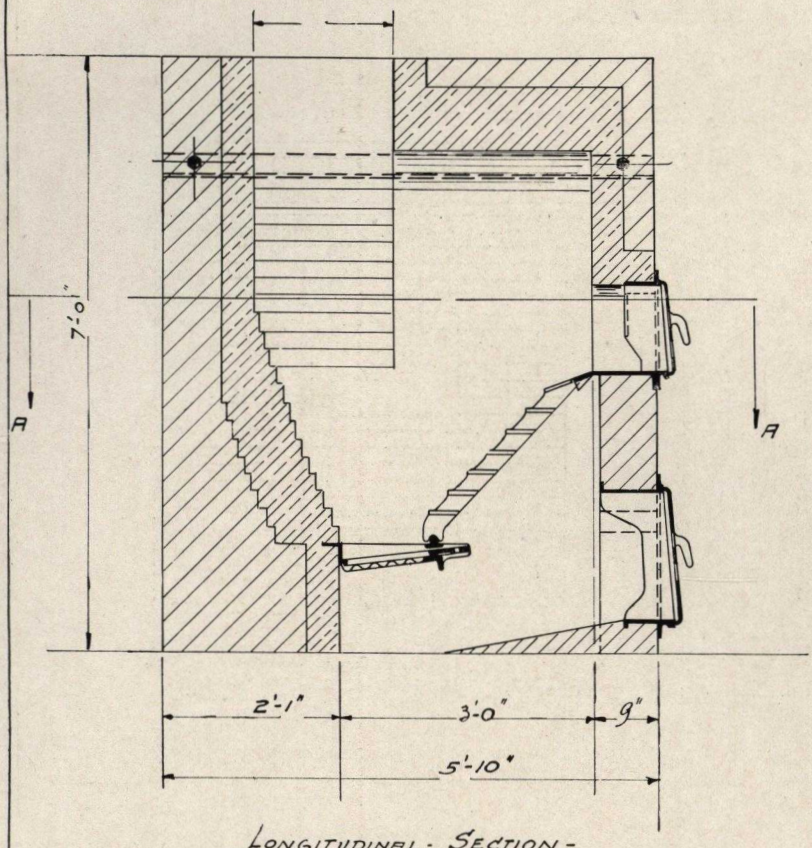
MODEL	INCINERATOR #2
CAPACITY	FOR 125 KITCHENETTE OR FOR 60 ORDINARY APARTMENTS
MINIMUM SIZE OF DOUBLE FLUE	SIZE OF CHUTE 12" • 16" SIZE OF SMOKE FLUE 6" • 16"
MINIMUM SIZE OF SINGLE FLUE	3 STORY BLDGS. 16"x16" HIGHER THAN 3 STORIES 20"x20"
GRATE AREA	24" • 36"
NUMBER OF BRICKS	FIRE BRICKS 500 COMMON BRICKS 1400
REMARKS	

PATENT-APPLIED-FOR

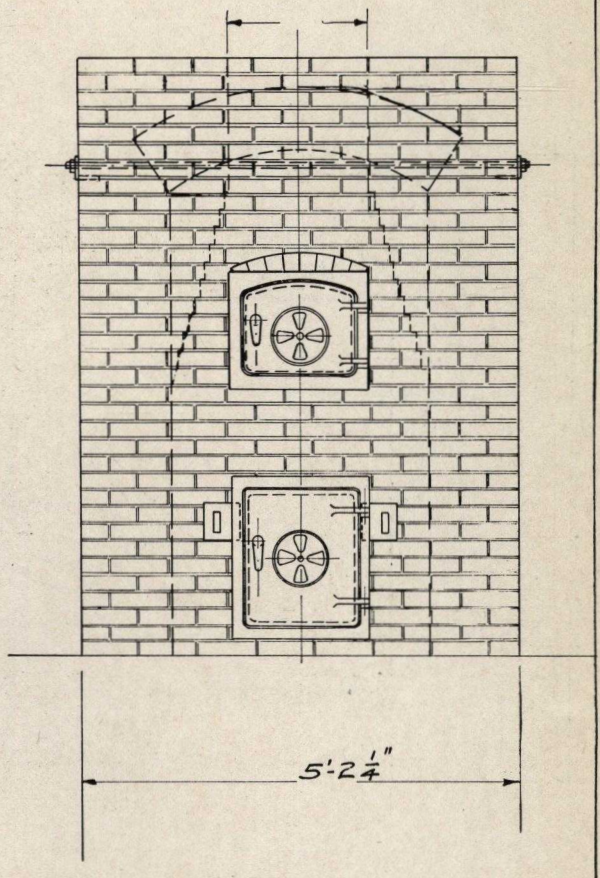
INCINERATOR #2

MID-WEST INCINERATOR CORP. CHICAGO ILL.

DRAWN: H.M.	SCALE 1" • 1-0"
TRACED: H.M.	A-2
APPR.	DATE: JAN. 24 27



LONGITUDINAL - SECTION -



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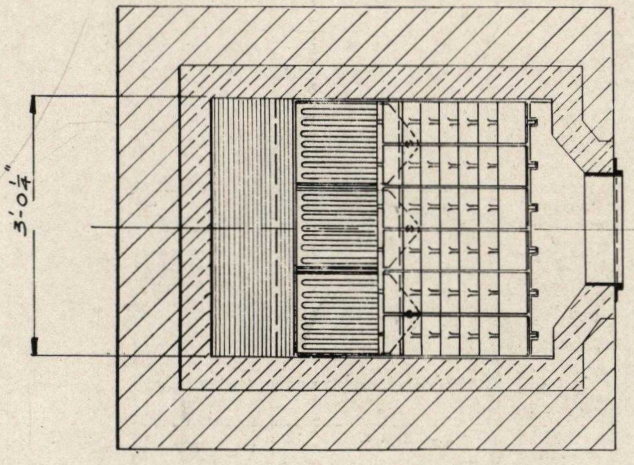


SECTION - A-A

MODEL	INCINERATOR # 3.
CAPACITY	FOR 250 KITCHENETTE OR FOR 75 ORDINARY APARTMENTS
MINIMUM SIZE OF DOUBLE FLUE	SIZE OF CHUTE 18" · 18" SIZE OF SMOKE FLUE 8" · 18"
MINIMUM SIZE OF SINGLE FLUE	8 STORY BLDGS. 20" x 20" HIGHER THAN 8 STORIES 24" X 24"
GRATE AREA	36" · 36"
NUMBER OF BRICKS	FIRE BRICKS 800 COMMON BRICKS 2000
REMARKS	

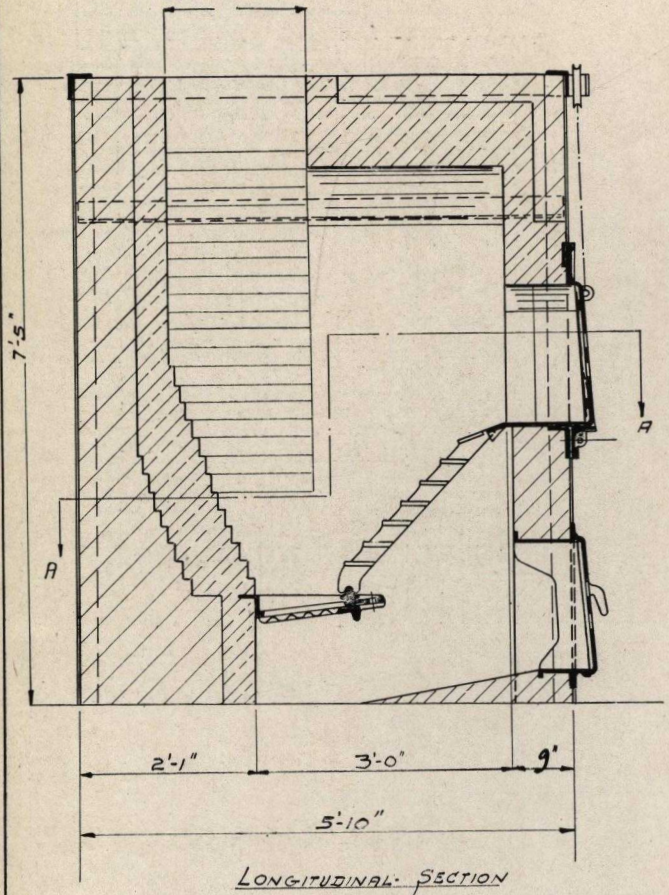
PATENT APPLIED FOR

INCINERATOR # 3

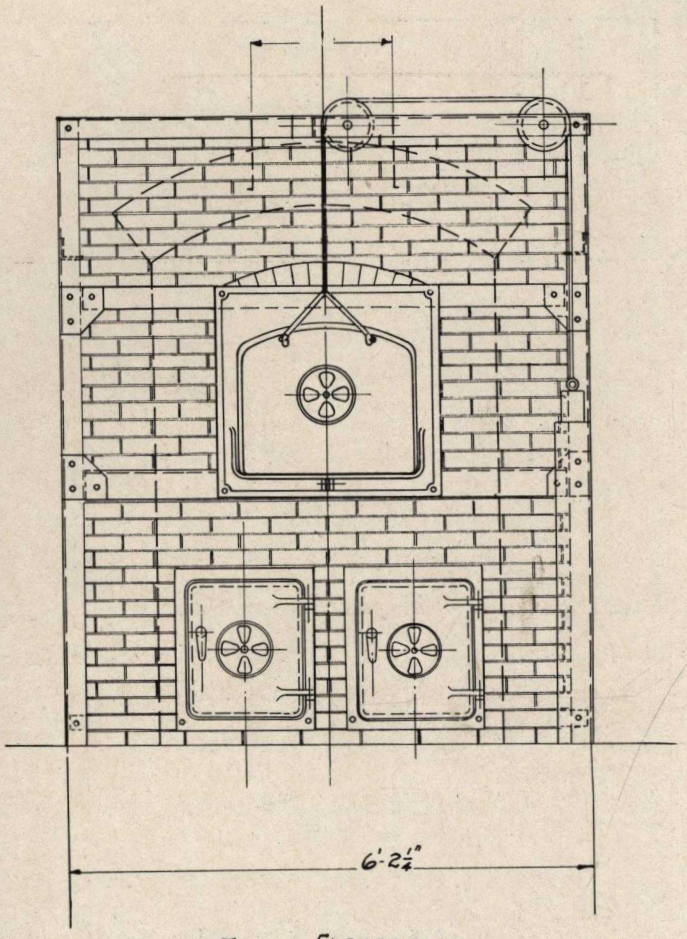
MID-WEST INCINERATOR CORP.
CHICAGO ILL

DRAW: H.M
TRACED: H.M.
APP.

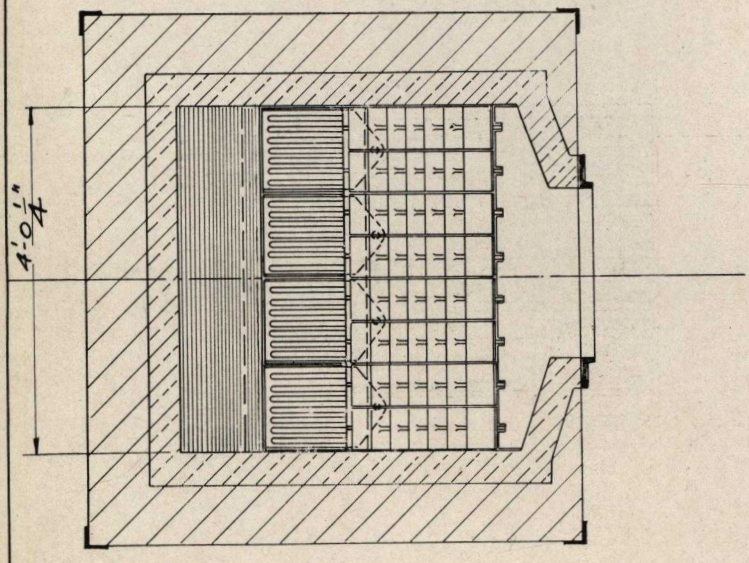
SCALE 1" = 1'-0"
A-3
DATE: JAN. 28. 27



LONGITUDINAL SECTION



FRONT-ELEVATION



SECTION - A-A-

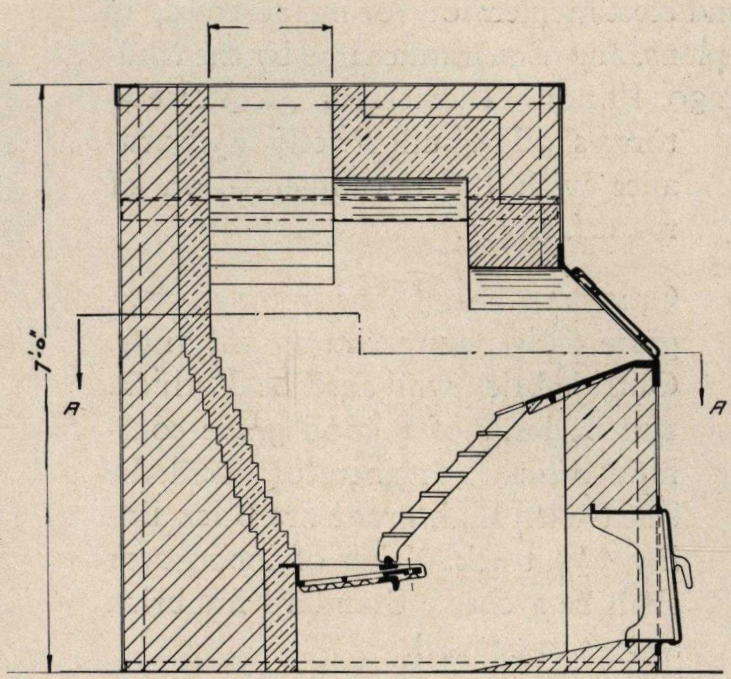
MODEL	INCINERATOR #4.
CAPACITY	FOR BUILDINGS WITH MORE THAN 250 KITCHENETTE OR MORE THAN 75 ORDINARY APARTMENTS ALSO INSTITUTIONS HAVING 175 lbs. p.H.
MINIMUM SIZE OF DOUBLE FLUE	SIZE OF CHUTE 18" × 20" SIZE OF SMOKE FLUE 6" × 20"
MINIMUM SIZE OF SINGLE FLUE	24" × 24"
GRATE AREA	48" × 36"
NUMBER OF BRICKS	FIRE BRICKS 1200 COMMON BRICKS 2300
REMARKS	STEEL-FRAME - GUILLOTINE TYPE DOOR

PATENT APPLIED FOR

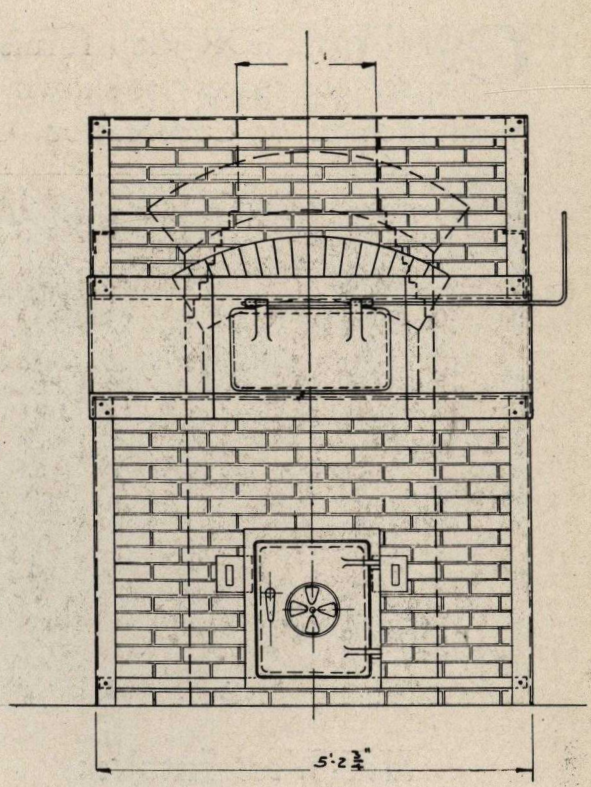
INCINERATOR #4

MID-WEST-INCINERATOR CORP
CHICAGO-ILL

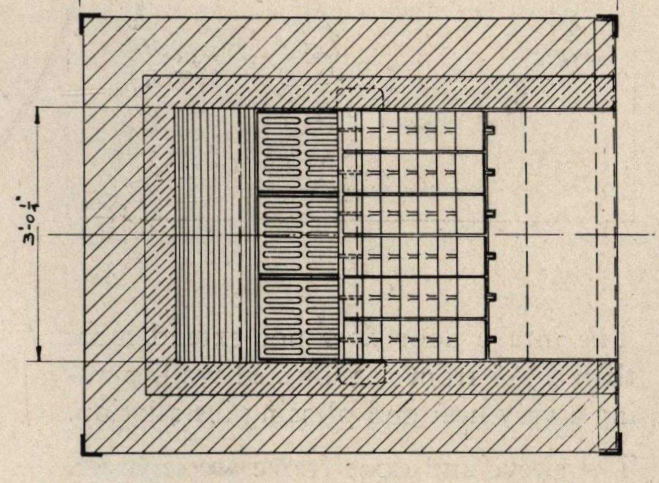
DRAWN: H.M.	SCALE 1" = 1'-0"
TRACED: H.M.	A-4
APP.	DATE: FEB. 3. 27



- LONGITUDINAL - SECTION -



- FRONT - ELEVATION -



SECTION - A-A

MODEL	INCINERATOR # 5.
CAPACITY	FOR LARGE APARTMENTS - INSTITUTIONS AND RESTAURANTS WITH CENTRAL KITCHEN
MINIMUM SIZE OF DOUBLE FLUE	SIZE OF CHUTE 18" · 18" SIZE OF SMOKE FLUE 8" · 18"
MINIMUM SIZE OF SINGLE FLUE	8 STORY BLDGS. 20" x 20" HIGHER THAN 8 STORIES 24 x 24"
GRATE AREA	36" · 36"
NUMBER OF BRICKS	FIRE BRICKS 1500 COMMON BRICKS 2300
REMARKS	STEEL - FRAME WITH INCLINED FRONT

PATENT - APPLIED FOR

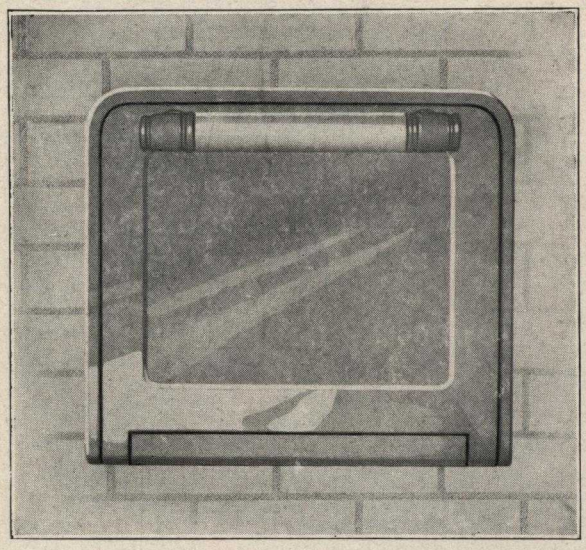
INCINERATOR #5 INCLINED FRONT

MID - WEST - INCINERATOR CORP.
CHICAGO ILL.

DRAWN : H.M.	SCALE 1" · 1-0"
TRACED : H.M.	- A-5 -
APPR. :	DATE JAN. 22. 27.

How to Specify *Mid-West Incinerators*

CONTRACTOR shall furnish and erect incinerator (or incinerators) in space (or spaces) as shown on plans, and as manufactured by the Mid-West Incinerator Corporation, Chicago, Illinois. Incinerator (or incinerators) shall be built strictly in accordance with the recommendation of manufacturer.

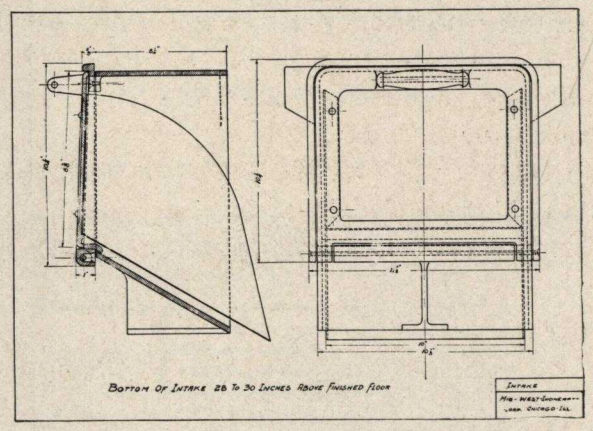


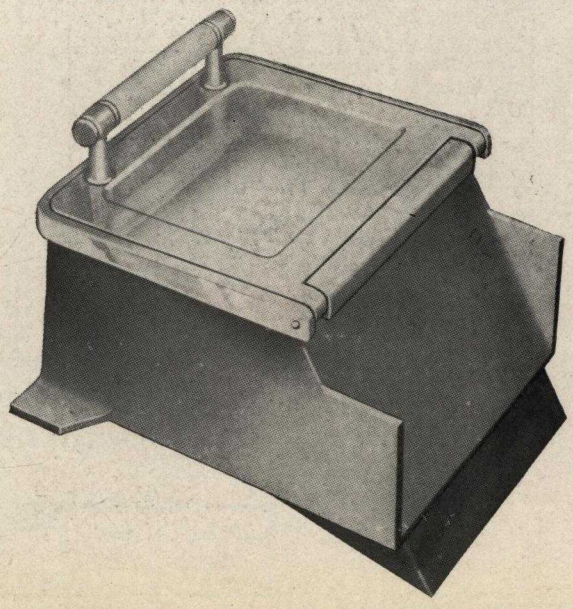
Grates shall be of the improved step-grate design with sliding ash grate. Outside brick wall shall be 8″ thick, and be built of a good grade common brick. Incinerator shall be lined with high grade fire brick lining 4½″ thick. Top of incinerator shall be arched. Standard fire brick shapes to be used.

Mid-West Intakes

THE new large sized *Mid-West* refuse intakes are the most important improvement in the field.

The intakes have a free opening of 10″ x11″. The door is a one piece casting finished in enamel and the door is equipped with a cast iron ridge on its inner side upon which the apron or bucket is placed, producing a tight and substantial connection. The sleeve is cast iron and has a *horizontal upper surface* upon which the brickwork rests.

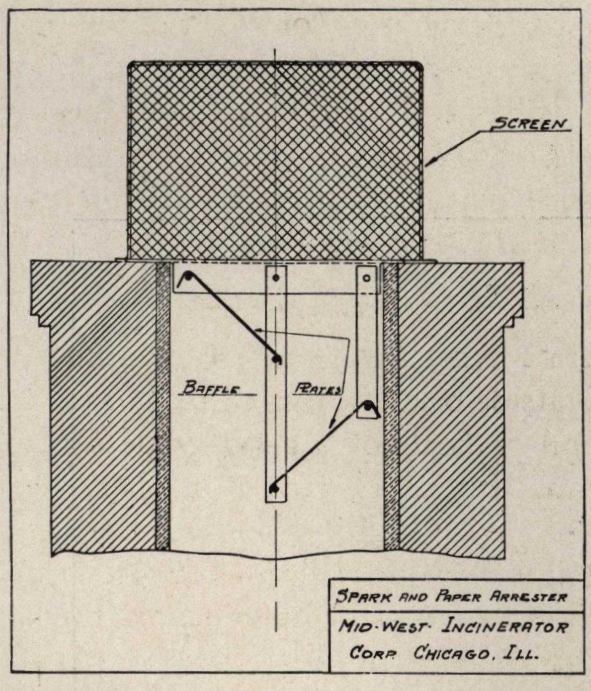




The intake door does not extend more than 1½″ from the finished wall, making a very neat and pleasing installation.

The sleeve and door frame are separate. Door frame and door can be attached to sleeve after same is bricked in, and are easily removable, without disturbing any other part.

From a practical point of view, as well as from a decorative one, the Mid-West intakes are unequaled.



Mid-West Spark and Paper Arrester and Screens

MANY years of experience with chimney fed incinerators have taught us that a large amount of the trouble from back-firing and smoke results from clogging of the screens through loose paper or other light particles carried up by the draft.

To eliminate this trouble we have designed our spark arrester. A series of perforated baffles is placed in the top of the flue to divert the flow of the ascending flue gasses and to intercept the particles carried in suspension by them. Changing the direction of the hot gas current throws paper and other solid particles aside, and results in their deposit in the triangular space formed by the baffles and the chimney wall.

This arrangement *has proven very efficient* and we have adopted it as standard on all buildings higher than six floors.

A galvanized wire screen of proper size to fit flue is furnished with all chimney fed furnaces. One-half inch mesh is used as standard. Hipped screens are furnished for flues of residence buildings.

Mid-West Incinerator Corporation's *Guarantee*

Any part found defective in material or workmanship within a period of one year will be replaced free of charge.

Mid-West Chute Fed Incinerators may be returned and money will be refunded, should they fail to prove satisfactory, provided installation is made properly according to our drawings and directions.

Mid-West Incinerator Corporation

Specializes solely
in
Incinerators

ALL SIZES FOR ALL PURPOSES

Residences, Apartment Buildings
Hospitals, Medical Institutions and Sanitariums
Hotels, Restaurants, Club Houses
Department Stores and Warehouses
Industrial Establishments
Railroad Yards, Stations, etc.
Parks, Cemeteries, Camps

We make surveys and lay out entire systems for collection and disposal

Confer With Us Regarding
Any Waste and Refuse Disposal Problem

Mid-West Incinerator Corporation

154 East Erie Street

Chicago, Ill., U. S. A.